

Appl. No. 10/708,783  
Amdt. dated January 23, 2006  
Reply to Office action of October 27, 2005

No amendments are made to the claims, and the claims are merely listed for reference.

**Listing of Claims:**

Claim 1-7 (Canceled).

5

Claim 8 (Previously presented): A method for monitoring a machine comprising:

- selecting a product wafer running through the machine;
- performing a non-destructive detection to the selected product wafer
- 10 to inspect a plurality of defects;
- separating pre-layer defects from defects generated by the machine;
- analyzing the defects generated by the machine for killer defects;
- if killer defects are present among the defects generated by the machine, initiating an alarm on the machine; and
- 15 if killer defects are not present among the defects generated by the machine, processing a work of the machine.

Claim 9 (Previously presented): The method of claim 8 wherein the step of separating the pre-layer defects is performed according to a predetermined

20 database, the database comprising a classifying rule of each defect type and defect information of each defect type.

Claim 10 (Previously presented): The method of claim 9 wherein the defect information of each defect type comprises an influence degree over a yield

25 of the machine of each defect type.

Claim 11 (Previously presented): The method of claim 8 wherein when killer defects are detected, the method further comprises following steps:

Appl. No. 10/708,783

Amdt. dated January 23, 2006

Reply to Office action of October 27, 2005

performing a root cause analysis according to the defect type of the detected defects; and

informing a responsible person of the machine to correct process parameters of the machine.

5

Claim 12 (Previously presented): The method of claim 8 wherein the method utilizes inline automatic defect classification (ADC) tools to classify the defects.

10 Claim 13 (Previously presented): The method of claim 12 wherein the ADC tools includes databases of defect types of each layer to classify the defects.